

Appl. No.: 10/676,922

Amendment Dated: July 15, 2009

Reply to Office Action of April 15, 2009

REMARKS

Claims 2-4, 6-28, 30, 32-33, 35-46, 48-50, 52-54, 56-64 and 66 are pending.

Claims 1, 5, 29, 31, 34, 47, 51, 55 and 65 have been cancelled.

In the Office Action dated April 15, 2009, claims 1-66 were provisionally rejected on the ground of nonstatutory obviousness-type double patenting over claims 1-67 of copending U.S. Application No. 10/677,159; claims 1-66 were provisionally rejected on the ground of nonstatutory obviousness-type double patenting over claims 1-72 of copending U.S. Application No. 10/676,557; claim 3 was rejected under 35 U.S.C. § 112, ¶ 2; claims 1-8, 10, 12-14, 16-19, 25-26, 28-34, 36-38, 44, 46-51, 53-57, 61, 63 and 65-66 were rejected under 35 U.S.C. § 102(e) as anticipated by Nelson (U.S. Patent No. 6,961,941); and claims 9, 11, 15, 20-24, 27, 35, 39-43, 45, 52, 58-62 and 64 were rejected under 35 U.S.C. § 103(a) as unpatentable over Nelson.

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OBVIOUSNESS-TYPE DOUBLE PATENTING REJECTION

Claims 1-66 of the present application were provisionally rejected on the ground of nonstatutory obviousness-type double patenting over claims of U.S. Serial No. 10/677,159, and U.S. Serial No. 10/676,557.

In view of the amendments made to the present claims, the provisional obviousness-type double patenting rejection has been rendered moot. Moreover, it is respectfully submitted that the obviousness-type double patenting rejection raised at this time is premature, since it is unclear at this time which of the applications will first issue. Moreover, it is unclear at this point what the final claims will look like in U.S. Serial No. 10/677,159 and U.S. Serial No. 10/676,557. Therefore, withdrawal of the provisional obviousness-type double patenting rejection is respectfully requested.

REJECTION UNDER 35 U.S.C. § 112, ¶ 2

Claim 3 has been amended to address the § 112, ¶ 2 rejection. Therefore, withdrawal of the § 112 rejection is respectfully requested.

REJECTIONS UNDER 35 U.S.C. §§ 102 AND 103

Claims 1, 5, 29, 31, 34, 47, 51, 55, and 65 have been cancelled, without prejudice, to render the rejection of those claims moot.

Claim 11 has been amended from dependent form to independent form. The Office Action argued that although Nelson does not disclose the subject matter of claim 11, that the subject matter of claim 11 is nevertheless obvious over Nelson alone. The assertion of obviousness is not based on any objective evidence of record. Rather, the assertion of obviousness is based on the conclusory statement that the elements of claim 11 would have been obvious to a person of ordinary skill in the art, with no support provided.

As shown in Fig. 1 of Nelson, the system of Nelson includes a kernel 600, a COS (commodity operating system) 420, a VMM 300, and a virtual machine 200. As explained by Nelson, the computer of Nelson is initialized using the COS. Nelson, 3:5-7. Subsequently, a kernel is loaded via the COS, where the kernel forms a second operating

system. *Id.*, 3:11-12. Upon execution of the kernel, the COS is displaced from the system level. *Id.*, 3:13-15. Nelson also describes that a virtual machine is installed to run on the kernel via a virtual machine monitor (VMM). *Id.*, 3:48-50. Nelson mentions that the kernel is able to separately schedule the execution of the COS and of each VM. *Id.*, 3:50-51.

However, nowhere in Nelson is there any hint given of the VMM determining whether an I/O device is performing an I/O sequence, and delaying commencing the virtualization until the virtual machine monitor determines that the I/O sequence has completed, as recited in claim 11. Loading the kernel as performed in Nelson has nothing to do with the foregoing subject matter of claim 11.

The Office Action has cited no evidence that would have provided the requisite reason to modify Nelson to achieve the subject matter of claim 11. Therefore, the obviousness rejection of claim 11 is erroneous.

Claim 15 has been amended from dependent form to independent form. According to claim 15, the virtual machine monitor determines the mode of the I/O device prior to commencing the virtualization, and the virtual machine monitor restores the determined mode of operation after the virtualization. With respect to the subject matter of claim 15, the Office Action conceded that Nelson does not disclose such subject matter. However, without citing any objective evidence to support the allegation, the Office Action alleged that the claimed subject matter would have been obvious. It is respectfully submitted that nothing in Nelson provides any hint of a virtual machine monitor determining the mode of the I/O device prior to commencing the virtualization, and the virtual machine monitor restoring the determined mode of operation after the virtualization. Therefore, the obviousness rejection of claim 15 is also erroneous.

Independent claim 17 recites devirtualizing the I/O device at runtime, where runtime is a period of execution in the computer after boot and before shutdown of the computer. With respect to claim 17, the Office Action cited the following passage of Nelson as purportedly disclosing the claimed subject matter: column 5, lines 18-25. The cited passage of Nelson refers to unloading a kernel. However, there is absolutely no teaching whatsoever that unloading the kernel involves devirtualizing an I/O device at

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runtime. Applicant has reviewed the entirety of Nelson, and has found no passage in Nelson that provides any teaching that unloading the kernel involves devirtualizing an I/O device at runtime. Therefore, claim 17 is clearly not anticipated by Nelson.

Claim 35 has been amended from dependent form to independent form. Claim 35 is allowable for similar reasons as claim 11.

Independent claim 38 is allowable over Nelson for similar reasons as claim 17.

Claim 52 has been amended from dependent form to independent form. Claim 52 is allowable for similar reasons as claim 11.

Independent claim 56 is allowable for similar reasons as claim 17.

Dependent claims are allowable for at least the same reasons as corresponding independent claims.

In view of the allowability of base claims, the obviousness rejection of dependent claims has been overcome.

In view of the foregoing, allowance of all claims is respectfully requested.

The Commissioner is authorized to charge any additional fees and/or credit any overpayment to Deposit Account No. 08-2025 (200309154-1).

Respectfully submitted,

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